



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/711,608	09/28/2004	Adrian Snell	78.1188	5607

26932 7590 10/05/2006

JEFFREY E. DALY
GRANT PRIDECO, L.P.
400 N. SAM HOUSTON PARKWAY EAST
SUITE 900
HOUSTON, TX 77060

EXAMINER

ANDREWS, DAVID L

ART UNIT	PAPER NUMBER
----------	--------------

3672

DATE MAILED: 10/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/711,608

Applicant(s)

SNELL, ADRIAN

Examiner

David Andrews

Art Unit

3672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-78 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-78 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 September 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f):
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>9/28/2004</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "52" has been used to designate both the fastener in figure 6 and the transmitter in figure 12c. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 16 in figure 1 and 10a in figure 11. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either

Art Unit: 3672

"Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

3. The abstract of the disclosure is objected to because it contains claim-like language in the form of long run on sentences. Correction is required. See MPEP § 608.01(b).
4. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. Note that the method claims

need to be reflected in the title. A suggested title is: Removable Equipment Housing for Downhole Measurements and Method.

5. The disclosure is objected to because of the following informalities: a portion of page 10, line 3 reads "...at least one cavity 118.." but should read "...at least one cavity 18..". Appropriate correction is required.

Claim Objections

6. Claims 21, 22, 23, 28, 65 and 76 are objected to for being in improper format for alternative limitation claims. They should be constructed in Markush format. See MPEP 803.02. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-5, 10-13, 21-23, 27, 28, 31-34, 40, 41-44, 49, 50, 53-57, 62, 64, 65, 68-71, 73 and 75 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Pichery et al. (US 2003/0159823). Pichery et al. disclose an apparatus (and inherent method of operation) comprising: a component adapted to be positioned in a wellbore (2 in figure 2) having a recess (3 in figure 2), a detachable sealed housing removably coupled (8 in figure 2) and positioned in the recess, wherein the detachable sealed

housing has at least one cavity formed therein and at least one device in the cavity (140 in figure 2; paragraph 41).

In regard to claims 2-5, 42-44, 54-57, and 69-71, the apparatus of Pichery et al. also comprises at least one sensor (140 in figure 2) and at least one electrical component (120 in figure 2; paragraph 43) where the housing is substantially entirely within the recess (figure 2).

In regard to claims 10-13, 31-34, 49, 50, 62, and 73, the apparatus of Pichery et al. also comprises a plurality of cavities (inherently necessary as the housing holds multiple devices 120, 140, 130 as shown in figure 2). Pichery et al. show a plurality of recesses with at least one sensor and at least one electrical component in each (figure 1) and is considered equivalent to having at least one sensor and/or one electrical component in each cavity of the device. Alternatively, the device of Pichery et al. could be seen as having housing comprised of protective sheath (6 in figure 1) with lateral housings (3 in figure 1) having cavities each with subassemblies (8 in figure 1) which each have at least one sensor and at least one electrical component.

In regard to claims 21-23, 65 and 76 the apparatus of Pichery et al. also comprises a temperature or pressure sensor (140 in figure 2; paragraph 41), a battery (120 in figure 2; paragraph 43), electrical circuits (130 in figure 2; paragraph 45) and a pipe (2 in figure 1).

In regard to claims 27 and 40, the apparatus of Pichery et al. also comprises a device (120 in figure 2) operatively coupled to a sensor (140 in figure 2; paragraph 44) positioned within an opening defined in the component.

In regard to claims 64 and 75, the apparatus of Pichery et al. also comprises having the recess formed in the interior of the component (3 in figure 2).

8. Claims 1, 7, 9, 14, 16, 19, 26, 28, 29, 35, 39, 41, 48, 53, 59, 61, 63, 68 and 74 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Wentworth et al. (US 6,260,634). Wentworth et al. disclose an apparatus (and inherent method of operation) comprising a component adapted to be positioned in a wellbore (31 in figure 1) having a recess (92 in figure 2), a detachable sealed housing removably coupled (32 in figure 1) and positioned in the recess, wherein the detachable sealed housing has at least one cavity formed therein and at least one device in the cavity (48 in figure 2; column 2, lines 40-42).

In regard to claims 7 and 59, the apparatus of Wentworth et al. also includes the use of split rings and retaining clips to secure the housing the component (column 7, lines 42-65, especially lines 62-65).

In regard to claims 9, 29, and 61, the apparatus of Wentworth et al. also includes a cover plate (37 in figure 2 or 4) over the housing and removably coupled by at least one threaded fastener (column 7, lines 42-43).

In regard to claims 14, 46, 63 and 74, the apparatus of Wentworth et al. also comprises a recess formed in the exterior of the component (92 in figure 25).

In regard to claims 16 and 48, the apparatus of Wentworth et al. also comprises a housing with a generally cylindrical configuration (32 in figure 1).

In regard to claims 19 and 35, the apparatus of Wentworth et al. also comprises at least one passageway extending from the cavity to an external surface (52 in figures 12 and 14; column 7, line 66 – column 8, line 2).

In regard to claims 26 and 39, the apparatus of Wentworth et al. also comprises a housing (32 in figure 2) with at least a portion defining a nozzle (end of 34 in figure 2) that is coupled to a drill bit (31 in figure 2).

9. Claims 1, 6, 8, 15, 20, 28, 30, 36, 41, 45, 47, 53, 58, 60, 68 and 72 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Perry et al. (US 5,251,708).

Perry et al. disclose an apparatus (and inherent method of operation) comprising a component adapted to be positioned in a wellbore (18 in figure 1) having a recess (that which receives 82 in figure 2), a detachable sealed housing removably coupled (27 in figure 2) and positioned in the recess, wherein the detachable sealed housing has at least one cavity formed therein and at least one device in the cavity (30, 32, or 34 in figure 3; column 8, line 67 – column 9, line 2).

In regard to claims 6, 8, 45, 58, 60 and 72, the apparatus of Perry et al. also comprises the housing threadingly coupled to the recess (82 in figure 2), and a threaded retaining member (103 in figure 11e; column 11, lines 1-10) to engage a portion of the housing and secure it within the recess.

In regard to claims 15, 30 and 47, the apparatus of Perry et al. also comprises a detachable sealed housing comprising: a body (10 in figure 3), a cover plate coupled to the body (42, 44, 46 in figure 3) a seal positioned between the body and cover plate (48 in figure 3; column 9, lines 10-12).

In regard to claims 20 and 36, the apparatus of Perry et al. also comprises an internal passageway formed in the housing that connects at least two of the cavities together (52 in figure 3).

10. Claims 1 and 17 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Miszewski (US 6,523,609). Miszewski discloses an apparatus comprising a component adapted to be positioned in a wellbore (60 in figure 2) having a recess (formed between 42 and 43 in figure 2), a detachable sealed housing removably coupled (30 in figure 2) and positioned in the recess, wherein the detachable sealed housing has at least one cavity formed therein and at least one device in the cavity (40 in figure 2; column 4, lines 3-10), wherein the housing has a partial ring segment configuration (figure 3).

11. Claims 1 and 18 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Hensley et al. (US 6,547,010). Hensley et al. disclose an apparatus comprising a component adapted to be positioned in a wellbore (12 in figure 4) having a recess (26 in figure 4), a detachable sealed housing removably coupled (10 in figure 4) and positioned in the recess, wherein the detachable sealed housing has at least one cavity formed therein and at least one device in the cavity (11 in figure 5), wherein the housing is coupled to the component by at least one hinged connection (150 in figure 23A and 23B).

12. Claims 1, 24, 25, 28, 37, 38, 41, 51-53, 66, 67, 68, 77, and 78 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Otten et al. (US 6,516,880). Otten et al. disclose an apparatus comprising a component adapted to be positioned in a

Art Unit: 3672

wellbore (13 and 14 in figure 1A) having a recess (formed between 13 and 14 in figure 1A), a detachable sealed housing removably coupled (10 in figure 1A) and positioned in the recess, wherein the detachable sealed housing has at least one cavity formed therein and at least one device in the cavity (22 in figure 1A; column 5, line 67 – column 6, line 6), wherein the housing is coupled to at least one indicator light and at least one display panel (DD in figure 1; column 5, lines 16-20; display panel inherently contains indicator lights).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Andrews whose telephone number is (571) 272-6558. The examiner can normally be reached on Monday thru Friday, 8am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on (571) 272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3672

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



David Baghell
Supervisory Patent Examiner
Art Unit 3672

DLA
9/26/06